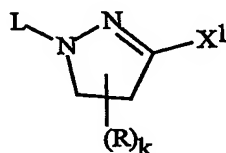


CLAIMS

What is claimed is:

1. A method for preparing a 3-halo-4,5-dihydro-1*H*-pyrazole compound of Formula

I



I

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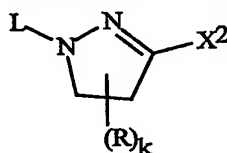
wherein L is an optionally substituted carbon moiety;

each R is independently selected from optionally substituted carbon moieties;

k is an integer from 0 to 4;

and X¹ is halogen; comprising:

- 10 contacting a 4,5-dihydro-1*H*-pyrazole compound of Formula II



II

wherein X² is OS(O)_mR¹, OP(O)_p(OR²)₂ or a halogen other than X¹;

m is 1 or 2;

p is 0 or 1;

- 15 R¹ is selected from alkyl and haloalkyl; and phenyl optionally substituted with from 1 to 3 substituents selected from alkyl and halogen; and

each R² is independently selected from alkyl and haloalkyl; and phenyl optionally substituted with from 1 to 3 substituents selected from alkyl and halogen;

with a compound of the formula HX¹ in the presence of a suitable solvent.

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2. The method of Claim 1 wherein m is 2 and p is 1.

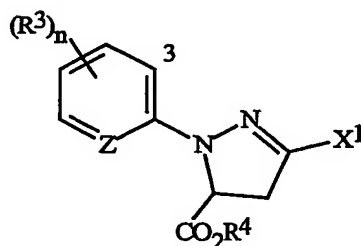
3. The method of Claim 2 wherein X² is halogen or OS(O)_mR¹.

4. The method of Claim 3 wherein X² is Cl or OS(O)_mR¹ and R¹ is C₁-C₂ alkyl, phenyl or 4-methylphenyl.

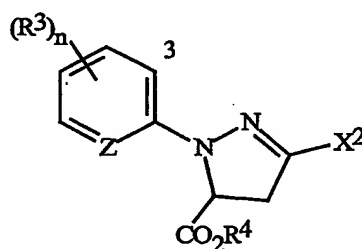
5. The method of Claim 1 wherein X¹ is Cl or Br.

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6. The method of Claim 1 wherein the compound of Formula I is of Formula Ia

**Ia**

and the compound of Formula II is of Formula IIa

**IIa**

5 wherein

each R³ is independently C₁–C₄ alkyl, C₂–C₄ alkenyl, C₂–C₄ alkynyl, C₃–C₆ cycloalkyl, C₁–C₄ haloalkyl, C₂–C₄ haloalkenyl, C₂–C₄ haloalkynyl, C₃–C₆ halocycloalkyl, halogen, CN, NO₂, C₁–C₄ alkoxy, C₁–C₄ haloalkoxy, C₁–C₄ alkylthio, C₁–C₄ alkylsulfinyl, C₁–C₄ alkylsulfonyl, C₁–C₄ alkylamino, C₂–C₈ dialkylamino, C₃–C₆ cycloalkylamino, (C₁–C₄ alkyl)(C₃–C₆ cycloalkyl)amino, C₂–C₄ alkylcarbonyl, C₂–C₆ alkoxy carbonyl, C₂–C₆ alkylaminocarbonyl, C₃–C₈ dialkylaminocarbonyl or C₃–C₆ trialkylsilyl;

R⁴ is H or an optionally substituted carbon moiety;

Z is N or CR⁵;

15 R⁵ is H or R³; and

n is an integer from 0 to 3.

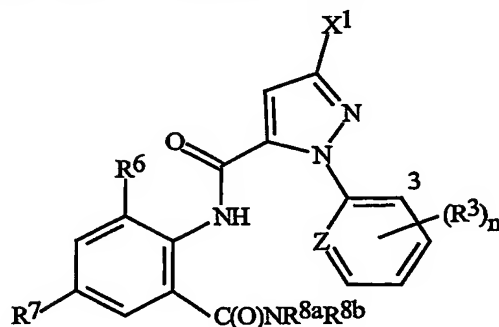
7. The method of Claim 6 wherein R⁴ is C₁–C₄ alkyl.

8. The method of Claim 7 wherein Z is N, n is 1, and R³ is Cl or Br and is at the 3-position.

20 9. The method of Claim 7 wherein X¹ is Br, X² is Cl or OS(O)_mR¹, m is 2, and R¹ is phenyl or 4-methylphenyl.

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10. A method of preparing a compound of Formula III



III

wherein

X¹ is halogen;

each R³ is independently C₁–C₄ alkyl, C₂–C₄ alkenyl, C₂–C₄ alkynyl, C₃–C₆ cycloalkyl, C₁–C₄ haloalkyl, C₂–C₄ haloalkenyl, C₂–C₄ haloalkynyl, C₃–C₆ halocycloalkyl, halogen, CN, NO₂, C₁–C₄ alkoxy, C₁–C₄ haloalkoxy, C₁–C₄ alkylthio, C₁–C₄ alkylsulfinyl, C₁–C₄ alkylsulfonyl, C₁–C₄ alkylamino, C₂–C₈ dialkylamino, C₃–C₆ cycloalkylamino, (C₁–C₄ alkyl)(C₃–C₆ cycloalkyl)amino, C₂–C₄ alkylcarbonyl, C₂–C₆ alkoxy carbonyl, C₂–C₆ alkylaminocarbonyl, C₃–C₈ dialkylaminocarbonyl or C₃–C₆ trialkylsilyl;

Z is N or CR⁵;

R⁵ is H or R³;

R⁶ is CH₃, F, Cl or Br;

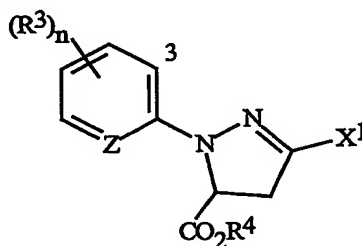
R⁷ is F, Cl, Br, I or CF₃;

R^{8a} is C₁–C₄ alkyl;

R^{8b} is H or CH₃; and

n is an integer from 0 to 3

using a compound of Formula Ia



Ia

wherein R⁴ is H or an optionally substituted carbon moiety, characterized by:
preparing said compound of Formula Ia by the method of Claim 6.

11. The method of Claim 10 wherein R^4 is C_1-C_4 alkyl.

12. The method of Claim 11 wherein Z is N, n is 1, and R^3 is Cl or Br and is at the 3-position.

13. The method of Claim 11 wherein X^1 is Br, X^2 is Cl or $OS(O)_mR^1$, m is 2, and R^1 is phenyl or 4-methylphenyl.